

CLAIMS

1. A service utilization terminal comprising:

a connector obtaining unit (120) referring to a description of an application, and

5 obtaining a connector being information for specifying a function required for executing said application; and

a function utilizing unit (130, 140) accessing a location of said function described in said connector based on access information relating to the location, and utilizing said function specified by said connector.

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2. The service utilization terminal according to claim 1, wherein

said access information described in said connector is a URI (Uniform Resource Identifier) for accessing said location.

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3. The service utilization terminal according to claim 1, wherein

said function utilizing unit (130, 140) obtains result from said function by passing the information defined by said connector to said function specified by said connector.

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4. The service utilization terminal according to claim 3, wherein

said connector includes data conversion information, and

said function utilizing unit (130, 140) converts data obtained from said application based on said data conversion information, and passes the converted data to said function.

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5. The service utilization terminal according to claim 3 or 4, wherein

said function utilizing unit (130, 140) converts a result obtained from said function based on said data conversion information, and passes the converted result to said application.

6. The service utilization terminal according to claim 5, wherein
said application is an application outputting the result obtained from said
function, converted by said function utilizing unit (130, 140) and passed from said
5 function utilizing unit (130, 140).

7. The service utilization terminal according to any one of the preceding claims
1 to 6, further comprising:
a first connector determining unit (110) comparing identification information
10 unique to said application with identification information unique to said connector when
executing said application, and determining whether said function can be utilized using
said connector or not.

8. The service utilization terminal according to claim 7, wherein
15 said application includes unique information customized according to the service
utilization terminal,
said connector includes unique information customized according to the service
utilization terminal, and
said first connector determining unit (110) compares identification information
20 unique to said customized application with identification information unique to said
connector, and determines whether said function can be determined or not, using said
connector when service utilization terminal executes said application.

9. The service utilization terminal according to any one of the preceding claims
25 1 to 8, wherein
said connector obtaining unit (120) obtains a connector held by a different device
by accessing said different device, and
said service utilization terminal further comprises a connector storing unit (700)

storing said obtained connector.

10. The service utilization terminal according to any one of the preceding claims 1 to 9, wherein

5 said application includes validity information including at least one of information relating to a valid period of said application and a number of allowed operations of utilizing said application, and

10 said service utilization terminal further comprises an application determining unit (320) referring to said validity information and determining whether said application can be executed or not.

11. The service utilization terminal according to any one of the preceding claims 1 to 10, wherein

15 said connector includes validity information including at least one of information relating to a valid period of said application and a number of allowed operations of utilizing said connector, and

20 said service utilization terminal further comprises a second connector determining unit (120) referring to said validity information when executing said application, and determining whether said function can be specified or not, using said connector.

12. The service utilization terminal according to claim 11, wherein

25 said connector obtaining unit (120) obtains a new connector when said second connector determining unit (120) determines that it is impossible to specify said function, using said connector.

13. The service utilization terminal according to any one of the preceding claims 1 to 12, wherein

a description of said application includes a connector condition provided with an obtaining destination for obtaining said connector and at least one of information unique to said connector and information relating to said function specified by said connector, and

5 said connector obtaining unit (120) obtains a connector satisfying said connector condition from said obtaining destination.

14. The service utilization terminal according to any one of the preceding claims 1 to 13, wherein

10 said connector obtaining unit (120) includes a connector selecting unit (14, 120) selecting a predetermined connector from a plurality of different connectors as a connector to be obtained by said connector obtaining unit (120) when executing said application, and

15 said function utilizing unit (130, 140) utilizes a function specified by said selected predetermined connector among a plurality of different functions specified by said plurality of different connectors.

15. The service utilization terminal according to any one of the preceding claims 1 to 14, further comprising:

20 an application obtaining unit (110) obtaining said application.

16. A mobile telephone terminal comprising:

the service utilization terminal according to any one of the preceding claims 1 to

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17. A television receiver terminal comprising:

the service utilization terminal according to any one of the preceding claims 1 to

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18. A connector provision server comprising:
a connector storing unit (900) storing a connector being information including
access information for a location of said function for specifying a function required for
executing an application;

5 a connector managing unit (920) managing said connector stored in said
connector storing unit (900); and

a connector transmitting unit (530) receiving a request for said connector from a
service utilization terminal, and transmitting said required connector to said service
10 utilization terminal.

19. The connector provision server according to claim 18, wherein
said connector includes identification information corresponding to said
application.

15 20. The connector provision server according to claim 18 or 19, wherein
said connector includes validity information including at least one of information
relating to a valid period of said application and a number of allowed operations of
utilizing said connector.

20 21. The connector provision server according to any one of the preceding
claims 18 to 20, wherein
the access information described in said connector is a URI (Uniform Resource
Identifier) for accessing said location.

25 22. The connector provision server according to any one of the preceding
claims 18 to 21, further comprising:
a terminal managing unit (510) obtaining terminal information of said service

utilization terminal requiring said connector; and

a determining unit (920) determining based on said terminal information whether said required connector is to be transmitted to said service utilization terminal or not.

5 23. The connector provision server according to any one of the preceding claims 18 to 22, further comprising:

a terminal managing unit (510) obtaining terminal information of said service utilization terminal requiring said connector; and

10 a first editing unit (920) editing said required connector based on said terminal information.

24. The connector provision server according to any one of the preceding claims 18 to 23, further comprising:

15 a second editing unit (920) editing said required connector according to a form of a location of said function.

25 25. The connector provision server according to claim 24, wherein said second editing unit (920) changes access information described in said connector into access information for access to a predetermined location among a plurality of locations when said function are located at said plurality of locations, respectively.

26. The connector provision server according to claim 24, wherein
said second editing unit (920) changes access information described in said connector into access information for access to said connector provision server, and
said connector provision server further comprises a relay unit (920) relaying access made to said connector provision server by the service utilization terminal requiring said function based on said changed access information to said location of said

function.

27. A data structure of connector data being information stored in storing means of a service utilization terminal for specifying a function required for executing an application in said service utilization terminal, and being information specified by a description of said application, comprising:

identifying information (802) of said connector data for causing said service utilization terminal to specify said connector data with reference to the description of said application;

10 access information (805) for accessing a location of said function by said service utilization terminal;

input definition information (805) defining information to be passed to said function by said service utilization terminal accessing said location according to said access information; and

15 output definition information (805) defining information to be received from said function by the service utilization terminal with respect to said information passed to said function.

28. The data structure of the connector data according to claim 27, wherein

20 said access information (805) is a URI (Uniform Resource Identifier) for accessing said location by said service utilization terminal.

29. The data structure of the connector data according to claim 27 or 28, further comprising:

25 validity information (803, 804) including at least one of information relating to a valid period of said connector data in said service utilization terminal and a number of allowed operations of utilizing said connector in said service utilization terminal, wherein said validity information (803, 804) enables said service utilization terminal to

determine whether said function can be specified using said connector data or not.

30. The data structure of the connector data according to any one of the preceding claims 27 to 29, further comprising:

5 identification information (802) of an application identifying the application, said identification information of the application enabling said service utilization terminal to determine whether said function can be specified using said connector data or not, when executing said application.

10 31. The data structure of the connector data according to any one of the preceding claims 27 to 30 further comprising:

unique information (802) customized according to the service utilization terminal, said unique information (802) enabling said service utilization terminal to determine whether said function can be specified using said connector data or not, when executing 15 said application.

32. The data structure of the connector data according to any one of the preceding claims 27 to 31, wherein

20 said access information (805) can be edited in a connector provision server providing said connector data.